CLAIMS

What is claimed is:

1. A slider assembly, comprising:

a slider having a magnetic head for reading and/or writing to a storage medium; and

a vibration absorber operatively coupled to the slider for reducing mechanical vibrations of the slider caused by contact of the slider with the storage medium.

2. A slider assembly as recited in claim 1, wherein the vibration absorber includes a coupling portion coupled to the slider, and a weight coupled to the coupling portion by a resiliently deformable flexure member.

3. A slider assembly as recited in claim 2, wherein the weight is positioned towards a trailing edge of the slider.

4. A slider assembly as recited in claim 2, wherein the weight is positioned towards a leading edge of the slider.

5. A slider assembly as recited in claim 2, further comprising a second weight coupled to the coupling portion.

6. A slider assembly as recited in claim 5, wherein the weight and second weight are positioned towards a leading and trailing edge of the slider, respectively.

7. A slider assembly as recited in claim 5, wherein the weight and second weight are positioned towards opposite edges of the slider, the opposite edges extending between trailing and leading edges of the slider.

8. A slider assembly as recited in claim 2, wherein a pivot axis of the flexure member is about parallel to an air bearing surface of the slider.

9. A slider assembly as recited in claim 2, wherein the weight has a flat profile, wherein a plane of the weight along the profile is oriented at an angle with respect to an air bearing surface of the slider.

10. A slider assembly as recited in claim 2, wherein the flexure member allows the weight to twist about an axis of the flexure member.

11. A slider assembly as recited in claim 2, wherein the weight is an integral part of the flexure member.

12. A slider assembly as recited in claim 1, wherein the vibration absorber is tuned to about match a natural frequency of vibration of the slider when the slider is in a flying state.

13. A slider assembly as recited in claim 1, wherein the vibration absorber is damped.

14. A slider assembly as recited in claim 13, wherein the damped vibration absorber is tuned to a frequency lower than a natural frequency of vibration of the slider when the slider is in a flying state.

15. A magnetic storage system, comprising:

a magnetic disk;

at least one head for reading from and writing to the magnetic disk;

a slider for supporting the head;

an actuator arm and suspension for supporting the slider;

a vibration absorber for reducing mechanical vibrations of the slider caused by contact of the slider with the magnetic media; and

a control unit coupled to the head for controlling operation of the head.

16. A magnetic storage system as recited in claim 15, wherein the vibration absorber is coupled to the slider.

17. A magnetic storage system as recited in claim 15, wherein the vibration absorber is coupled to the suspension.

18. A magnetic storage system as recited in claim 15, wherein the vibration absorber is coupled to the actuator arm.

19. A magnetic storage system as recited in claim 15, wherein the vibration absorber includes a coupling portion coupled to the slider, and a weight coupled to the coupling portion by a resiliently deformable flexure member.

20. A magnetic storage system as recited in claim 19, wherein the weight is positioned towards a trailing edge of the slider.

21. A magnetic storage system as recited in claim 19, wherein the weight is positioned towards a leading edge of the slider.

22. A magnetic storage system as recited in claim 19, further comprising a second weight coupled to the coupling portion.

23. A magnetic storage system as recited in claim 22, wherein the weight and second weight are positioned towards a leading and trailing edge of the slider, respectively.

24. A magnetic storage system as recited in claim 22, wherein the weight and second weight are positioned towards opposite edges of the slider, the opposite edges extending between trailing and leading edges of the slider.

25. A magnetic storage system as recited in claim 19, wherein a pivot axis of the flexure member is about parallel to an air bearing surface of the slider.

26. A magnetic storage system as recited in claim 19, wherein the weight has a flat profile, wherein a plane of the weight along the profile is oriented at an angle with respect to an air bearing surface of the slider.

27. A magnetic storage system as recited in claim 19, wherein the weight is an integral part of the flexure member.

28. A magnetic storage system as recited in claim 15, wherein the vibration absorber is tuned to about match a natural frequency of vibration of the slider when the slider is in a flying state.

29. A magnetic storage system as recited in claim 15, wherein the vibration absorber is damped.

30. A magnetic storage system as recited in claim 29, wherein the damped vibration absorber is tuned to a frequency lower than a natural frequency of vibration of the slider when the slider is in a flying state.

31. A magnetic storage system, comprising:

a magnetic disk;

at least one head for reading from and writing to the magnetic disk;

a slider for supporting the head;

an actuator arm and suspension for supporting the slider;

a vibration absorber for reducing mechanical vibrations of the slider caused by contact of the slider with the magnetic media; wherein the vibration absorber includes a coupling portion operatively coupled to the slider, and a weight coupled to the coupling portion by a resiliently deformable flexure member; and

a control unit coupled to the head for controlling operation of the head.

32. A magnetic storage system as recited in claim 31, wherein the weight is positioned towards a trailing edge of the slider.